

Ceased publication this is last issue JULY 1973 - NO. 4

CENTER FOR DISEASE CONTROL

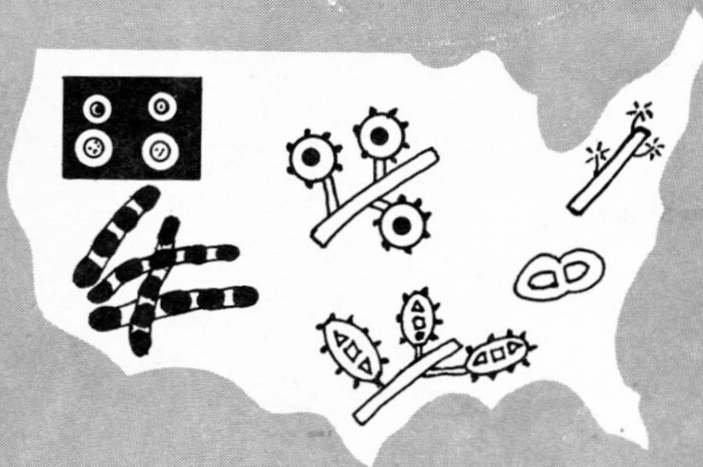
MYCOSES

SURVEILLANCE

RECEIVED

JUL 26 1973

CDC LIBRARY
ATLANTA, GA 30333



Mycoses surveillance.

PREFACE

The systemic fungal diseases are not included among the reportable diseases in many states. It is, therefore, difficult to assess the true size of the mycoses problem. This report summarizes presently available information with the hope that it may stimulate more active reporting of these diseases.

Information presented here is received from state and local health departments and other pertinent sources and is intended primarily for use by those responsible for disease control activities. Much of the information is preliminary. Anyone desiring to quote this report should contact the original investigator for confirmation and interpretation.

Additional copies of this report may be requested from:

Center for Disease Control
ATTN: Public Inquiries
Office of Information
Atlanta, Georgia 30333

Center for Disease Control	David J. Sencer, M.D. Director
Ecological Investigations Program	Tom D.Y. Chin, M.D. Director
Mycoses Section	Fred E. Tosh, M.D. Acting Chief
Statistical and Publications Services	Irene L. Doto, M.A. Chief

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE
Center for Disease Control
Atlanta, Georgia 30333

TABLE OF CONTENTS

I.	SURVEILLANCE.....
A.	Reported Cases and Deaths.....
B.	Fungal Serology.....
II.	COOPERATIVE MYCOSES STUDY.....
III.	SPECIAL REPORTS.....
A.	Hospital Survey of the Mycoses.....
B.	Histoplasmosis in Texas.....
C.	Histoplasmosis Outbreak Following Earth Day Activities...
D.	Chronic Pulmonary Histoplasmosis in Tennessee, 1962-1971.
E.	Common Source Outbreak of Blastomycosis.....
F.	Reference Mycology Laboratory, Lexington, Kentucky.....

I. SURVEILLANCE

A. Reported Cases and Deaths

Twelve-hundred forty-seven cases of eight systemic mycoses were reported to the Public Health Service by 28 states in 1971 (Table 1). This represents a slight decrease from 1970, when 1,308 cases of mycoses were reported.

Coccidioidomycosis accounted for the greatest number of cases, 988, with 970 (98%) of these reported from Arizona and California. Histoplasmosis was the most widespread disease, occurring in 17 states. Histoplasmosis also ranked second to coccidioidomycosis in the number of cases reported (190).

Following coccidioidomycosis and histoplasmosis in frequency were blastomycosis (44 cases in 12 states), cryptococcosis (14 cases in 8 states), actinomycosis (6 cases in 5 states), aspergillosis (3 cases in 2 states), and nocardiosis and candidiasis (1 case of each).

The greatest number of deaths from mycotic diseases during 1969 were due to blastomycosis, which accounted for 127 fatalities out of a total of 450 (Table 2). This large number of deaths from blastomycosis contrasts sharply with

5.

the situation in 1968, when there were no reported fatalities from this disease. Of the other mycoses, cryptococcosis caused 117 deaths in 1969, candidiasis 114, histoplasmosis 61, coccidioidomycosis 16, and actinomycosis 15.

B. Fungal Serology

A total of 164,704 fungal serology tests on 47,995 specimens was reported by state public health laboratories during fiscal year 1971 (Table 3). Positive results, indicating active or recent infection, were obtained in 12,935 tests. Of the 27 states reporting fungal serologies, 27 performed exams for histoplasmosis, 26 for coccidioidomycosis, and 25 for blastomycosis.

II. COOPERATIVE MYCOSES STUDY

Ninety-one new cases were added to the CDC Cooperative Mycoses Study during 1971 (Table 4). Since the beginning of the study in 1958, a total of 1,451 cases of 9 mycoses from 26 states has been entered (Table 5). The study is a joint venture by physicians and hospitals in several states and the Ecological Investigations Program, CDC, to evaluate chemotherapy of the systemic mycoses.

Histoplasmosis has accounted for the largest number of cases in the study, totaling 937 cases to date. It has

also been the most widespread disease, having been found in 20 states.

III. SPECIAL REPORTS

A. Hospital Survey of the Mycoses

Data on the incidence of deep mycoses are presently compiled from two sources: optional reporting to CDC and reporting of hospitalized patients to the CDC Cooperative Mycoses Study. The overall CDC totals are gross underestimates of true incidence since reporting of cases is not required.

In order to obtain more accurate information about the incidence of hospitalization due to deep mycoses, the CDC Mycoses Section obtained and analyzed hospital discharge data on patients with deep mycoses who were hospitalized at institutions participating in the Professional Activities Study of the Commission on Professional and Hospital Activities, Ann Arbor, Michigan (CPHA).^{*} Approximately 33% of all acute-care, nonfederal hospital beds in the United States participated in CPHA in 1970. Based on demographic data and diagnoses obtained for these cases, along with appropriate population figures, projections were made as to the total

^{*} In these data the identities of individual hospitals were not revealed in any way. Any analysis, interpretation or conclusion based on these data is solely that of the Mycoses Section, CDC; CPHA specifically disclaims responsibility for any such analysis, interpretation or conclusion.

number of patients with a deep mycosis who were hospitalized in the United States in 1970.

The number of reported cases hospitalized and the total number of cases projected for each fungal infection are shown in Table 6. Discharge information specified whether the fungal infection was the primary reason for hospitalization (primary diagnosis) or a secondary diagnosis, and the number of reported and projected cases are presented on this basis. As derived from the data, there were an estimated 7,697 patients hospitalized with a systemic mycotic infection in 1970. The total cost of hospitalization of these patients was 9.4 million dollars, based on actual and projected figures for duration of hospital stay and a cost per day of hospitalization of \$81.01 (1).

Geographic distribution of cases of histoplasmosis and coccidioidomycosis conformed to the pattern of known endemic areas for these organisms. For blastomycosis a slightly higher incidence was noted in the southeastern states, whereas for the other infections the distribution was essentially uniform.

Age analysis of patients hospitalized demonstrated that most cases of acute histoplasmosis occurred in individuals

between 30 and 49 years of age, while chronic pulmonary histoplasmosis occurred mainly in the 40-59-year-old group, and aspergillosis in the 60-69-year-old group. The largest number of cases of systemic candidiasis was found in the youngest and oldest groups. For the other mycoses, there were no remarkable age trends.

Analysis of cases by sex showed that for coccidioidomycosis, histoplasmosis, actinomycosis, aspergillosis, and sporotrichosis, infection occurred significantly more often in males, while systemic candidiasis was significantly more common in females.

Because the totals obtained include only short-term nonfederal hospitals, they still underestimate the total number of hospitalized cases of deep mycoses. Nevertheless, while this type of survey is of limited value, it does provide the largest and most uniform accounting of hospitalized cases of deep mycoses in the United States.

Reference:

1. Hospital Statistics, editorial. Hospitals (Guide Issue, The Nation's Hospitals: A Statistical Profile, No. 15, Part 2, August 1) 45:445-494, 1971.

B. Histoplasmosis in Texas

From January 1969 through January 1972, 53 cases of histoplasmosis were reported in Jacksonville, Texas (population 9,734). A total of 38 cases were confirmed by either a positive culture, a 4-fold rise in complement fixation (CF) titer, or compatible symptoms (fever, cough, chest pain, erythema multiforme or nodosum) and a CF or latex agglutination titer of at least 1:32. Fifteen probable cases had either compatible symptoms, radiologic findings, and a CF titer of at least 1:8 or erythema nodosum or multiforme and a CF titer of at least 1:8.

There were 31 females and 21 males ranging in age from 3 to 100 years. Although the cases were scattered throughout the 3-year period, 26 (50%) became ill in the 9-month period from August 1969 through April 1970. All 14 cases with erythema nodosum and erythema multiforme occurred in this same period.

Two cases were in city employees who had cleared a thicket of cane which had been a blackbird-starling roost for 5-7 years. One man bulldozed the patch in March 1971. Approximately 4 days later, he had onset of fever, myalgia,

and arthralgia. A second worker cleared the patch again in July 1971. Seven days later he experienced fever and myalgia. Both men had 4-fold rises in CF antibody titers to the yeast phase of Histoplasma capsulatum.

In May 1972, all children in grades 1-12 of the Jacksonville Independent School District were offered a histoplasmin skin test. A similar skin-test survey was conducted in nearby Henderson, Texas (population 10,187), and the results demonstrated a strikingly lower number of positive tests (Table 7).

The higher skin-test positivity in children from all parts of Jacksonville suggested that there might be several other areas in the town contaminated with H. capsulatum, in addition to the blackbird-starling roost. This roost and 22 other sites (wooded areas, cane thickets, chicken houses) which might harbor Histoplasma capsulatum were tested for the fungus. The known roost and another site which had been a bird roost in the past were found to be harboring H. capsulatum. In March 1973, technical assistance was provided to the Jacksonville City Health Department in decontaminating the two sites with 3% formalin. Post-decontamination soil specimens are being processed.

C. Histoplasmosis Outbreak Following Earth Day Activities

A well-meant attempt at cleaning up the environment resulted, paradoxically, in the largest number of clinical cases of histoplasmosis ever to be reported in a single epidemic, in Earth Day activities April 22, 1970, at a junior high school in Delaware, Ohio. The outbreak originated in clean-up efforts in which the school's courtyard, an old starling and blackbird roost, was raked and swept. The courtyard harbored Histoplasma capsulatum, and the mode of spread was airborne, with the entire school building being contaminated with courtyard air via the school's forced air ventilation system with intakes in the courtyard. Clinical illness occurred in 384 (40 per cent) of the students and faculty, with probably an equal number of subclinical cases.

Based on the finding that soil samples from the courtyard were positive for H. capsulatum, in September 1970 the courtyard was treated with three separate applications of 3 per cent formalin in an effort to eliminate environmental fungal contamination. Plans were made for follow-up soil sampling.

Source: Brodsky AL, Gregg MB, Loewenstein MS, Kaufman L, and Mallison GF: Outbreak of histoplasmosis associated with the 1970 Earth Day activities. Am J Med 54: 333-342, 1973.

Editorial Note:

Following decontamination of the courtyard, soil samples were taken at monthly intervals for the first six months, and again in September 1971 and September 1972. All samples were negative for H. capsulatum.

D. Chronic Pulmonary Histoplasmosis in Tennessee, 1962-1971

The Tennessee Department of Public Health requested a list of all patients since 1962 with discharge diagnoses of pulmonary histoplasmosis from the record rooms of the three Veteran's Administration hospitals and the four chronic chest disease hospitals in the State. All patients were categorized as to year of first diagnosis, age, sex, race, and county of residence at the time of first diagnosis. Those persons with a diagnosis of acute pulmonary histoplasmosis and disseminated histoplasmosis were eliminated. Since several of the hospitals have adopted the nomenclature of acute and chronic pulmonary only in the past few years, the type of pulmonary histoplasmosis is unclear in earlier lists. In addition, activity is not classified. However, since these patients were generally admitted as suspected chronic pulmonary tuberculosis cases, they probably had chronic histoplasmosis of some type, either cavitary, localized nodular or multiple nodular forms. Since general hospitals do not admit cases of suspected chronic tuberculosis, these lists must be nearly complete for residents of Tennessee.

Table 8 shows that since 1966, annual case rates for the State have remained stable at less than one per 100,000 population. Higher rates in 1962 to 1965 may have reflected belated diagnoses of patients previously thought to have tuberculosis.

Incidence rates for whites for the ten-year period were 12.0 per 100,000, for non-whites 7.9 per 100,000, for males 20.8 per 100,000, and for females 2.4 per 100,000. Age incidence rates were highest in the groups 45 to 64 years of age, but were significant in all groups 35 and older.

Figure 1 shows the divisions of tuberculosis districts for Tennessee and the decade incidence rates of chronic pulmonary histoplasmosis for each. As is true in skin testing surveys, there were progressively greater rates from east to west. Table 9 compares the incidences in the four metropolitan counties with the incidences in the remainder of counties in the same tuberculosis district. Despite emigration to cities, incidence rates are higher in rural counties than in urban counties.

In summary, this data suggests that chronic pulmonary histoplasmosis continues to be discovered at a low but steady rate, mainly in older white males in the central and western regions of the State.

Source: Robert H. Hutcheson, Jr., M.D., State Epidemiologist,
Tennessee Department of Public Health and
David L. Freeman, M.D., EIS Officer.

E. Common Source Outbreak of Blastomycosis

In November 1972, 4 men in Bigfork, Minnesota, became ill with a disease compatible with blastomycosis. Symptoms included fever, myalgia, cough, and chest pain. Chest films on the 4 patients were abnormal, and skin tests on the 4 showed a positive reaction to blastomycin. Sputum specimens obtained from all 4 patients were positive for Blastomyces dermatitidis. Weak complement fixation reaction to B. dermatitidis yeast form antigens were demonstrated in sera from 2 of the 4 patients.

Epidemiologic investigation revealed that the only common association of the 4 men was the construction of a cabin near a lake approximately 15 miles north of Bigfork. In addition, their family members and a few friends had helped with the work or had spent leisure time there.

Seventeen family members and 5 friends were investigated. Chest roentgenograms were made on 16 of the 17 family members, and 8 were abnormal. Three of these 8 persons reported having symptoms similar to those of the initial 4 patients in November. All 17 family members were skin tested with blastomycin and histoplasmin; 12 showed a positive reaction to blastomycin.

One of the 12 also reacted to histoplasmin. Sera from 2 persons with abnormal chest films showed weak complement fixation titers to B. dermatitidis yeast form antigens. Thus, 12 of the 21 members of the four families exposed to the cabin developed acute pulmonary blastomycosis. None of the 5 friends, who had only limited contact with the cabin, had abnormal chest roentgenograms or positive skin tests.

Specimens of rotten wood from an outhouse, samples of dirt from rafters in the outhouse, specimens of rotten firewood stacked by the cabin, and sweepings from the cabin were collected in December. The ground was frozen at the time and covered with several inches of snow which prevented soil sampling.

Blastomyces dermatitidis was not isolated from the specimens collected in December. In March 1973 the site was visited again and numerous samples of soil and rotten logs were collected in the vicinity of the cabin. These samples also failed to reveal B. dermatitidis by culture. Although isolates of B. dermatitidis from a natural source have been reported from 1 laboratory (1), these findings have not been confirmed, and the natural reservoir remains unknown.

This is the first common source outbreak of acute pulmonary blastomycosis reported. One other documented episode of epidemic blastomycosis has appeared in the literature (2), but it was not associated with a common source.

References:

1. Denton JF, DiSalvo AF: Isolation of Blastomyces dermatitidis from natural sites at Augusta, Georgia.
Amer J Trop Med Hyg 13:716-722, 1964.
2. Smith JG Jr, Harris JS, Conant NF, Smith DT: An epidemic of North American blastomycosis. JAMA 158:641-646, 1955.

F. Reference Mycology Laboratory, Lexington, Kentucky

The Reference Mycology Laboratory at the University of Kentucky Medical Center, Lexington, Kentucky, expanded its workload during 1971, with a 74% increase in the number of isolations of pathogenic fungi. The isolations made included Histoplasma capsulatum, Blastomyces dermatitidis, Nocardia asteroides, and Aspergillus sp., as well as 15 isolates of other fungi known to be pathogenic for man. A wide variety of specimens were submitted for mycology and serology from the six state tuberculosis hospitals.

In the 2440 sera tested, the following percentages of complement-fixation positives to H. capsulatum were found for the various hospitals:

Madisonville:	100 of 495 or 20%
Louisville:	68 of 350 or 20%
Paris:	56 of 261 or 21%
Ashland:	24 of 198 or 12%
London:	150 of 750 or 20%
Glasgow:	84 of 386 or 21%

Sputum cultures are being performed on specimens received from 274 patients in these hospitals having a positive

yeast phase C-F test. To date, 27 or 9.8% of these patients have shown positive cultures for H. capsulatum; 6 or 2.2% of the patients have had positive cultures for B. dermatitidis. Positive cultures to other pathogenic fungi have been found in 33 or 11.9% of the patients.

A relationship can be seen between the number of isolations of H. capsulatum and the C-F titer of seropositive patients cultured. This relationship is shown in Table 10. As the titer increases, the number of isolations also increases. For example, in patients with a 1:8 titer, the isolation rate is 2.5%; this increases to 38.9% in patients with a titer of 1:64 or greater. Nevertheless, it is noteworthy that a significant number of isolations was made from patients with a 1:8 C-F titer. This somewhat discredits the belief that a 1:8 C-F titer is insignificant and need not be followed up by culture.

Source: Annual Report, July 1, 1971 through June 30, 1972, Kentucky State Tuberculosis Hospitals, Reference Mycology Laboratory. Mycology Program, Department of Community Medicine, University of Kentucky Medical Center, Lexington, Kentucky.

TABLE 1

MYCOTIC DISEASES OPTIONALLY REPORTED TO THE U.S. PUBLIC HEALTH SERVICE, 1971

STATE	ACTINO.	BLASTO.	COCCI.	CRYPTO.	HISTO.	OTHER	TOTAL
Alabama					14		14
Arizona			571				571
Arkansas	2	8	1		23		34
California			399				399
Connecticut	1						1
Florida		1		2	3	1*	7
Hawaii			1				1
Illinois	1	7	2		28		38
Indiana					6		6
Iowa		1			21	1**	23
Kansas				3	3		6
Kentucky		1			1		2
Louisiana	1	9		2	6		18
Maine						1***	1
Maryland					1		1
Minnesota	1	4	4	1	15		25
Mississippi		5			5		10
Missouri			1		8	2*	11
Montana			2				2
New Jersey		4		2	11		17
New Mexico			1				1
Ohio		2		1	26		29
Oklahoma		1	1		15		17
Oregon			1				1
Pennsylvania				2			2
South Carolina		1		1	4		6
Utah			1				1
Washington			3				3
TOTAL	6	44	988	14	190	5	1,247
NO. STATES REPORTING	5	12	13	8	17	4	28

*Aspergillosis.

**Nocardiosis.

***Candidiasis.

TABLE 2
 REPORTED DEATHS IN THE UNITED STATES
 FROM SIX SYSTEMIC FUNGAL DISEASES, 1965-1969

DISEASE	1969	1968	1967	1966	1965
Actinomycosis	15	16	28	21	26
Blastomycosis	127	--	17	12	29
Candidiasis	114	112	94	87	93
Coccidioidomycosis	16	58	49	45	52
Cryptococcosis	117	96	65	90	62
Histoplasmosis	61	58	67	60	74
TOTAL	450	340	320	315	336

Source: CDC Morbidity and Mortality Weekly Report, Annual
 Supplement, 20:6, Summary 1971.

TABLE 3

FUNGAL SEROLOGY TESTING BY STATE PUBLIC HEALTH LABORATORIES

FISCAL YEAR 1971

STATE	TOTAL SPEC.	TOTAL EXAMS.	TOTAL POS.	BLASTOMYCOSIS		COCCIDIOIDOMYCOSIS		HISTOPLASMOSIS		OTHER	
				EXAMS.	POS.	EXAMS.	POS.	EXAMS.	POS.	EXAMS.	POS.
Alabama	1,571	7,855	302	1,571	87	1,571	13	3,142	180	1,571	22
Arizona	10,167	13,631	1,696	-	-	12,599	1,648	1,032	48	-	-
Arkansas	1,886	7,496	687	1,874	255	1,874	1	1,874	88	1,874	343
Georgia	876	3,520	60	876	25	876	8	1,768	27	-	-
Illinois	5,245	17,343	1,470	3,411	338	3,442	23	10,490	1,109	-	-
Indiana	1,446	4,438	256	1,446	49	100	-	2,892	207	-	-
Iowa	1,024	5,428	428	1,357	120	1,357	11	2,714	297	-	-
Kansas	498	1,981	113	496	54	495	10	990	49	-	-
Kentucky	2,028	10,115	863	2,285	210	2,080	44	5,750	609	-	-
Louisiana	3,282	3,282	179	879	74	880	16	1,523	89	-	-
Maryland	1,814	6,634	*	1,503	*	1,503	*	3,628	-	-	-
Michigan	1,878	7,512	343	1,878	116	1,878	8	3,756	219	-	-
Minnesota	*	5,889	1,043	1,430	295	1,431	13	3,028	735	-	-
Mississippi	1,635	4,984	494	1,635	173	79	2	3,270	319	-	-
Missouri	2,694	11,020	1,025	2,749	169	2,747	35	5,524	821	-	-
New York	*	5,868	636	2,325	236	399	11	2,325	236	819	153

TABLE 3 (Continued)

STATE	TOTAL SPEC.	TOTAL EXAMS.	TOTAL POS.	BLASTOMYCOSIS		COCCIDIOIDOMYCOSIS		HISTOPLASMOSIS		OTHER	
				EXAMS.	POS.	EXAMS.	POS.	EXAMS.	POS.	EXAMS.	POS.
North Carolina	*	2,671	91	762	30	385	7	1,524	54	-	-
Ohio	4,451	9,342	1,360	1,234	179	1,207	55	6,901	1,126	-	-
Oregon	103	412	-	103	-	103	-	206	-	-	-
South Carolina	1,081	3,083	331	407	62	407	-	2,242	269	27a	-
South Dakota	33	81	-	25	-	25	-	31	-	-	-
Tennessee	3,394	6,788	427	-	-	-	-	6,788	427	-	-
Texas	*	15,584	479	3,896	146	3,896	48	7,792	285	-	-
Vermont	134	536	16	134	7	134	1	268	8	-	-
Virginia	1,590	6,360	457	1,590	106	1,590	-	3,180	351	-	-
West Virginia	91	261	4	53	1	50	-	158	3	-	-
Wisconsin	1,074	2,590	175	758	62	758	3	1,074	110	-	-
TOTAL	47,995	164,704	12,935	34,671	2,794	41,866	1,957	83,870	7,666	4,264	518

* No information reported.

- No activity on report.

a Cryptococcosis

States reporting no fungal serology activity were: Del., D.C., Fla., Hawaii, Idaho, Me., Mass., Nebr., Nev., N.H., N.J., N.M., Okla., Pa., R.I., Utah, Wash., and Wyo.

States not reporting were : Calif. and Colo.

Referred to CDC: Alaska, Conn., Mont., N.D., and N.M.

From Consolidated Annual Report on State and Territorial Public Health Laboratories, Fiscal Year 1971.

TABLE 4

NUMBER OF CASES BY STATE ENTERED IN THE CDC COOPERATIVE
MYCOSES STUDY, January 1, 1971 through December 31, 1971

STATE	BLASTO.	COCCI.	CRYPTO.	HISTO.	SPORO.	ASPER.	TOTAL
Arkansas	1			3			4
Illinois	1		1	1			3
Indiana				3			3
Kansas		1			3		4
Kentucky				2		1	3
Missouri	1		5	23		3	32
Oklahoma						1	2*
Tennessee			6	3			9
Texas		9	5	9		6	29
Virginia				1		1	2
TOTAL	3	10	17	45	3	12	91

*Includes: Nocardia brasiliensis - Oklahoma 1.

TABLE 5

NUMBER OF CASES BY STATE IN THE CDC COOPERATIVE
MYCOSES STUDY, January 1, 1958 through December 31, 1971

STATE	BLASTO.	COCCI.	CRYPTO.	HISTO.	SPORO.	ASPER.	TOTAL
Arizona		2					2
Arkansas	19	4	2	105	1	16	147
California			1	2			3
Delaware			3	4		2	9
Georgia				2			2
Illinois	8		4	33		1	46
Indiana	3	2	4	46		12	67
Iowa	2	1	1	5			9
Kansas	6	6	13	45	24	14	110*
Kentucky	21		2	149		22	194
Louisiana				5			5
Minnesota						1	1
Missouri	20	9	23	322	7	34	417*
Nebraska		1		1			2
New York				1			1

TABLE 5 (Continued)

STATE	BLASTO.	COCCI.	CRYPTO.	HISTO.	SPORO.	ASPER.	TOTAL
North Carolina	2		1				3
Ohio	3			49	1		53
Oklahoma		1	2	1		1	6*
Pennsylvania	1		1				2
South Dakota	1						1
Tennessee	16		20	71		7	114
Texas	3	99	22	77	2	15	219*
Vermont				2	6		8
Virginia	4		1	16		6	28*
West Virginia				1			1
Wisconsin	1						1
TOTAL	110	125	100	937	41	131	1,451*
NO. OF STATES	15	9	15	20	6	12	26

* Includes: Allescheria boydii - Kansas 1, Texas 1; Nocardia asteroides - Missouri 2, Virginia 1;
Nocardia brasiliensis - Kansas 1, Oklahoma 1.

TABLE 6

SYSTEMIC MYCOSES IN THE UNITED STATES IN 1970
NUMBER OF CASES REPORTED TO CPHA AND NUMBER PROJECTED FROM THE DATA

MYCOTIC INFECTION	NUMBER WITH MYCOSIS AS A PRIMARY DIAGNOSIS		NUMBER WITH MYCOSIS AS A SECONDARY DIAGNOSIS		TOTAL	
	REPORTED	PROJECTED	REPORTED	PROJECTED	NUMBER REPORTED	NUMBER PROJECTED
Histoplasmosis	449	1,462	855	2,544	1,304	4,006
Coccidioidomycosis	270	1,389	146	695	416	2,084
Actinomycosis*	55	174	50	166	105	340
Aspergillosis	42	144	53	235	95	379
Cryptococcosis	39	139	38	121	77	260
Blastomycosis	39	145	14	35	53	180
Systemic Candidiasis	31	88	76	250	107	338
Sporotrichosis	18	50	17	60	35	110
TOTAL	943	3,591	1,249	4,106	2,192	7,697

*Not a true mycosis but included out of deference to custom.

TABLE 7

PREVALENCE OF POSITIVE HISTOPLASMIN SKIN TESTS ACCORDING
TO GRADE, JACKSONVILLE AND HENDERSON, TEXAS, May 1972

GRADE	JACKSONVILLE		HENDERSON	
	NO. TESTED	% POS.	NO. TESTED	% POS.
1	218	76	201	6
2	230	77	217	6
3	261	87	205	8
4	251	88	209	8
5	229	87	218	13
6	234	87	241	13
7	226	93	205	13
8	240	95	211	14
9	162	93	192	17
10	146	88	172	27
11	101	89	107	23
12	125	91	120	24
Special Education	15	73	80	12
TOTAL	2,438	87	2,378	13

TABLE 8
NUMBER OF CASES OF CHRONIC PULMONARY HISTOPLASMOSIS IN
TENNESSEE WITH RATES PER 100,000 POPULATION BY YEAR, 1962-1971

YEAR	ANNUAL INCIDENCE	
	NUMBER	RATE
1962	94	2.6
1963	67	1.8
1964	40	1.1
1965	42	1.1
1966	34	0.9
1967	30	0.8
1968	27	0.7
1969	36	0.9
1970	30	0.8
1971	31	0.8
AVERAGE*	43.1	1.1

* Average annual number and rate for time period.

TABLE 9

NUMBER OF CASES OF CHRONIC PULMONARY HISTOPLASMOSIS
IN TENNESSEE WITH RATES PER 100,000 POPULATION, BY TUBERCULOSIS
DISTRICT, FOR 10-YEAR PERIOD, 1962-1971

DISTRICT	ALL COUNTIES		METROPOLITAN COUNTIES		NON-METROPOLITAN COUNTIES	
	NUMBER	RATE	NUMBER	RATE	NUMBER	RATE
West	208	17.3	92	13.3	116	22.7
Middle	142	12.7	27	6.2	115	16.7
East	67	6.4	11	4.1	56	7.2
Southeast	14	3.2	3	1.2	11	5.7
TOTAL	431	11.3	133	8.1	298	13.7

TABLE 10
ISOLATIONS OF HISTOPLASMA CAPSULATUM
RELATIVE TO CF TITER

CF* TITER	PATIENTS HAVING SPUTUM CULTURES		
	NO. TESTED	NO. POS.	% POS.
H POS.			
Y NEG.	8	0	0
1:8	122	3	2.5
1:16	85	8	9.4
1:32	49	9	18.4
<u>≥</u> 1:64	18	7	38.9
TOTAL	274	27	9.9

* Complement fixation.

FIGURE 1
CHRONIC PULMONARY HISTOPLASMOSIS CASE RATES
FOR 10 YEARS BY TUBERCULOSIS DISTRICT,
RESIDENT DATA, 1962-1971

